

Traverse 38K

Aug. 20/68

812581

East end of Brownlee Lake (5 miles west of Taku Arm, Tagish Lake)

Air Photo A11382-295

Geology-geochem traverse, moving East from camp along the margin of Brownlee Lake

A1-38K ~100' North of camp or 15'x50' of dark grey, fine to med. grained andesite

the rock is almost massive, a small veinlet (irregular shape) of epidote cuts the outcrop.

the coarser andesite contained ~10% quartz or feldspar, 5% fg. hornblende remainder too small to be identified

1 small bleb metallic pyrrhotite(?)

total metallics  $\ll \frac{1}{4}\%$

2 samples 1

$\Delta 2-38K$  on small point 150 yards east of camp

10' x 20' o.c. of dark grey, unmineralized  
andesite

several small ( $< \frac{1}{8}$ " wide) irregular  
calcite veinlets total calcite  $\sim 2\%$  of o.c.

1 sample

150' E of  $\Delta 2-38K$  o.c. 5' x 40' long of  
a quartz-orthoclase vein

the o.c. trends NW-SE but dip and  
strike could not be measured

the ratio quartz-feldspar varies

considerably from place to place

the vein is cut by numerous (3-10%) veinlets of reddish-brown siderite(?) these are irregular in pattern, and occur up to  $\frac{1}{8}$ " in width

the vein also contains  $\sim \frac{1}{4}\%$  metallics pyrrhotite(?) as masses yellowish-gold in colour and a black cubic mineral  $\sim 1\%$  showing good crystal form magnetite(?) CHECK IN CAMP

2 samples #4, #5

abundant limonite on some surfaces, this is fairly deep reddish brown colour

A3-38K on point south of camp 5'x15'

outcrop of medium grey, well indurated (possibly melandesite & siltstone (?) - the rock has

calcite (<1%) on joint surfaces and in some places contains 1-2% epidote as irregular veinlets

1 sample showed very minor dissem. metallics (pyrrhotite?) total metallics <<1%

no attitudes available

2 samples #6-bearing metallics

#7- contains epidote

continuing further south along this side of the lake 2 more o.c.s of same lithology as A3-38 were noted within 150 yards of A3

A4-38K same lithology medium grey in colour with grey-brown weathered surface

minor (~1%) calcite and epidote veinlets - irregular and cross-crossing

$\sim \frac{1}{2}\%$  small blebs of quartz or feldspar,-

assoc with these are small blebs of pyrite

total metallics  $\leq \frac{1}{2}\%$

1 sample #8

1 sample #8

Appearance of o.c. at SE corner of lake

suggests this rock is of volcanic rather than

sedimentary origin - here there is abundant

(up to 5%) epidote occurring as veins, veinlets and

pods - all are irregular in shape and distribution

after moving E up small creek to next

lake, then going North along the West bank of

the lake

A5-38K about 300 yds North of creek

2 small ocs 10'x10' of conglomerate

~40% fragments (mainly subrounded to rounded), and 60% greenish-grey grit matrix

~5% of fragments are e.g. intrusive,

10% dark grey siltstone, 30% limy f.g. rock, and remainder Qtz-feldspar vein material

fragments range from  $\frac{1}{2}$ " to ~8" in size

-the o.c. was poor and no specimen or attitude could be obtained

A small ocs of this cgl. within 100 yds moving to north, the matrix seems more

limy and the amt. of fragments decreases

all of these ocs have max. dimension trending 095° but no strike or dip could be measured - no sample

Ab-38K Just North of the "neck" in

this lake o.c. 15' high x 70' long

hard to name - looks like a quartzite in places, a chert (impure) in others the fresh colour varies from light grey to greyish-cream

-the entire o.c. contains dissem. pyrite(?) - ranging

from  $\frac{1}{4}$  - 1% the pyrite is fine grained

a few very small flecks of what may have

been chalcopyrite noted  $\ll \frac{1}{4}\%$

2 specimens #9, #10

Traverse 39K

Aug. 21, 1968

## Brownlee Lake Area

West of Taku Arm, Tagish Lake, B.C.

Air Photo A11382-295

Moving south-east from camp, heading for large notch on ridge on south side Brownlee Lake

A1-39K o.c. ~ 150yds E of Brownlee Lake

approx.  $\frac{1}{2}$  mile SE of camp

15' x 15' exposure of med. to dark grey volcanic (trachyte (?)) - the volcanic contains

~ 3% feldspar phenocrysts ( $< \frac{1}{4}$ " long)

and these are roughly aligned, giving a trachytic texture. the attitude

couldn't be measured

in places the volcanic is cut by many



very small veinlets - containing a very f. g. metallic mineral - too small to be identified or even scratched

these veinlets have a rusty-brown weathered colour

2 samples #1 of mineralization

#2 of trachytic texture

continuing further south up onto ridge and along fault valley through ridge - walking along the eastern side

in the fault valley the rock is almost all massive, well indurated grey to green volcanic - probably dacite or andesite

- minor ( $\leq \frac{1}{4}\%$ ) dissemin. pyrite

- also minor calcite ( $\frac{1}{2}\%$ ) along fractures

- on the West side of the valley, a large rust

● zone - rock appears to have been silicified -

original rock type unknown - abundant (up to 3%)

dissem pyrrhotite gives the rust colour

- 2 open-space quartz veins ~3" wide, irregular

over a.c. - 1 contained 2 small cubes of galena

● nothing else

- the pyrrhotite is present throughout the

entire outcrop

3 samples of the pyrrhotite-bearing siliceous

rock #3, #4, #5

● this rust zone is ~60' high x 200' long

on the east side again - the rock is still

● green to grey dacite or andesite with minor

( $< \frac{1}{2}$ %) dissem. pyrite - the rock is massive

2 samples were taken of the volcanic

#6 #7

A2-39K Southeast end of lake just East of

Brownlee Lake

2' x 2' oc. of med. grey siltstone with orange-

brown rust stain on weathered surface

the rock has faint lineation (bedding?)

at  $\swarrow$ <sup>80</sup><sub>120</sub>

the oc. does not show any veining or

mineralization

1 sample #8

A3-39K

just east of island on north side of lake

5' x 10' o.c. of thinly (bedded or foliated)

siltstone - beds  $\frac{1}{4}$ " wide

attitude  $\times 125^\circ$

all the siltstone shows rust stain (fairly orange)

50' W of this o.c. a 3'-4' wide dyke  
stands out this trends  $\times 135^\circ$

The dyke is not mineralized nor altered

some small areas of the siltstone are heavily  
fractured and rehealed by quartz

minor pyrite observed in the siltstone

2 samples #9 siltstone

#10 dyke